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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VU, NGOC K	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/717,579	JUTZI, CURTIS E.	
	Examiner	Art Unit	
	Ngoc K. Vu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-17,20-31,34-45 and 48-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-17,20-31,34-45 and 48-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 6-17, 20-31, 34-45 and 48-55 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 6-15, 20-28, 29, 34-43 and 48-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara (US 5,701,599 A) in view of Cheung et al. (US 6,515,964 B1).

Regarding **claim 1**, Aihara teaches an apparatus comprising:

a television receiver (3) to receive a television broadcast signal, the television broadcast signal (see col. 6, line 49-67 and figure 1), and

a service level determiner (CPU 11) to determine a service level of the television broadcast signal (when the error detector 6 detects the number of errors, determines the ratio of error to the reception signal, i.e., a total data amount per unit time on the basis of the detection result. The ratios of errors to the total reception data amount in the respective reception condition evaluation stages are 0.4% or less for the "best" condition, 0.5% to 1.0% for the "good" condition, and 1.1% or higher for the "no good" condition) and to cause the service level to be displayed (display a message indicating the "best", "good" or "no good" condition base on the determined error ratio – see col. 11, lines 53-62; col. 12, lines 4-25).

Aihara discloses an A/D converter to converts the broadcast signals into digital signals (see col. 6, lines 58-66). Aihara does not explicit disclose determining a data packet loss percentage value for the stream by calculating a ratio of a measured number of data packets received by the receiver and a number of data packets that should have been received by the receiver. It is noted that the state of a packet-switched network can be indicated by a number of performance parameters including packet loss, error rate, etc. Packet loss is the percentage of packets transmitted but not received, and can be measured by sending a known set of packets and determining how may are received as disclosed by Cheung (see col. 4, lines 14-25). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Aihara by determining packet loss including determining the percentage of packets transmitted but not received, and measuring the packet loss by sending a known set of packets and determining how may are received as disclosed by Cheung in order to effectively determine error of data reception in the network.

Regarding **claim 15**, Aihara teaches a method comprising:

receiving a television broadcast signal (via tuner 3), the television broadcast signal (see col. 6, line 49-67 and figure 1), and

determining a service level of the television broadcast signal (when the error detector 6 detects the number of errors, determines the ratio of error to the reception signal, i.e., a total data amount per unit time on the basis of the detection result. The ratios of errors to the total reception data amount in the respective reception condition evaluation stages are 0.4% or less for the "best" condition, 0.5% to 1.0% for the "good" condition, and 1.1% or higher for the "no good" condition) and displaying the service level (display a message indicating the "best", "good" or "no good" condition base on the determined error ratio – see col. 11, lines 53-62; col. 12, lines 4-25).

Aihara discloses an A/D converter to converts the broadcast signals into digital signals (see col. 6, lines 58-66). Aihara does not explicit disclose determining a data packet loss percentage value for the stream by calculating a ratio of a measured number of data packets received by the receiver and a number of data packets that should have been received by the receiver. It is noted that the state of a packet-switched network can be indicated by a number of performance parameters including packet loss, error rate, etc. Packet loss is the percentage of packets transmitted but not received, and can be measured by sending a known set of packets and determining how may are received as disclosed by Cheung (see col. 4, lines 14-25). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Aihara by determining packet loss including determining the percentage of packets transmitted but not received, and measuring the packet loss by sending a known set of packets and determining how may are received as disclosed by Cheung in order to effectively determine error of data reception in the network.

Regarding **claim 29**, Aihara discloses a machine-readable medium having stored thereon instructions (within microprocessor 5 – see figure 1), which when executed by a processor, causes the processor to perform the following

receiving a television broadcast signal (via tuner 3), the television broadcast signal (see col. 6, line 49-67 and figure 1), and

determining a service level of the television broadcast signal (when the error detector 6 detects the number of errors, determines the ratio of error to the reception signal, i.e., a total data amount per unit time on the basis of the detection result. The ratios of errors to the total reception data amount in the respective reception condition evaluation stages are 0.4% or less for the "best" condition, 0.5% to 1.0% for the "good" condition, and 1.1% or higher for the "no good" condition) and displaying the service level (display a message indicating the "best",

"good" or "no good" condition base on the determined error ratio – see col. 11, lines 53-62; col. 12, lines 4-25).

Aihara discloses an A/D converter to converts the broadcast signals into digital signals (see col. 6, lines 58-66). Aihara does not explicit disclose determining a data packet loss percentage value for the stream by calculating a ratio of a measured number of data packets received by the receiver and a number of data packets that should have been received by the receiver. It is noted that the state of a packet-switched network can be indicated by a number of performance parameters including packet loss, error rate, etc. Packet loss is the percentage of packets transmitted but not received, and can be measured by sending a known set of packets and determining how may are received as disclosed by Cheung (see col. 4, lines 14-25). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Aihara by determining packet loss including determining the percentage of packets transmitted but not received, and measuring the packet loss by sending a known set of packets and determining how may are received as disclosed by Cheung in order to effectively determine error of data reception in the network.

Regarding **claim 43**, Aihara teaches a system comprising:

a set-top box (broadcast receiving apparatus 1 – see figure 1) including,

a digital television receiver (tuner 3) to receive a television broadcast signal, the television broadcast signal, and

a service level determiner (CPU 11) to determine a service level of the television broadcast signal (when the error detector 6 detects the number of errors, determines the ratio of error to the reception signal, i.e., a total data amount per unit time on the basis of the detection result. The ratios of errors to the total reception data amount in the respective reception condition evaluation stages are 0.4% or less for the "best" condition, 0.5% to 1.0% for the

"good" condition, and 1.1% or higher for the "no good" condition) and a display device (10) to display the broadcast signal and the service level (display a message indicating the "best", "good" or "no good" condition base on the determined error ratio – see col. 11, lines 53-62; col. 12, lines 4-25 and figure 1).

Aihara discloses an A/D converter to converts the broadcast signals into digital signals (see col. 6, lines 58-66). Aihara does not explicit disclose determining a data packet loss percentage value for the stream by calculating a ratio of a measured number of data packets received by the receiver and a number of data packets that should have been received by the receiver. It is noted that the state of a packet-switched network can be indicated by a number of performance parameters including packet loss, error rate, etc. Packet loss is the percentage of packets transmitted but not received, and can be measured by sending a known set of packets and determining how may are received as disclosed by Cheung (see col. 4, lines 14-25). Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Aihara by determining packet loss including determining the percentage of packets transmitted but not received, and measuring the packet loss by sending a known set of packets and determining how may are received as disclosed by Cheung in order to effectively determine error of data reception in the network.

Regarding **claims 6-8, 20-22, 34-36 and 48-50,** Aihara discloses that when the error detector 6 detects the number of errors, determines the ratio of error to the reception signal, i.e., a total data amount per unit time on the basis of the detection result. The ratios of errors to the total reception data amount in the respective reception condition evaluation stages are 0.4% or less for the "best" condition, 0.5% to 1.0% for the "good" condition, and 1.1% or higher for the "no good" condition.

Regarding claims **10, 24, 38 and 52**, Aihara teaches the reception condition is updated at predetermined intervals, e.g., per unit time (see col. 11, line 49 to col. 12, line 25).

Regarding **claims 9, 23, 37 and 51**, Aihara shows to show a message indicating the reception condition such as "best", "good" or "no good" (see col. 12, lines 14-25). Aihara does not teach a bar shaped meter indicating a service level range from 0% to 100%. It would have been obvious to one of ordinary skill in the art to modify the system of Aihara by providing a bar shaped meter indicating the reception condition range from 0%-100" in order to visually provide the reception condition in a accurate manner.

Regarding **claims 11, 25, 39 and 53**, Aihara teaches the display device (10) is a television (see col. 6, lines 29-39).

Regarding **claims 12, 14, 26, 28, 40, 42 and 54**, Aihara teaches the broadcast receiving apparatus receives the broadcast signal via a terrestrial broadcast station network (see col. 6, lines 49-51).

Regarding claims **13, 27, 41 and 55**, Aihara does not explicitly disclose receiving the broadcast signal via a satellite network. Official Notice is taken that broadcasting signal via a satellite network in television system is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to modify the system of Aihara by receiving broadcast signal via a satellite network in order to provide a higher quality of broadcast signal.

4. Claims 2, 3, 16, 17, 30, 31, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aihara (US 5,701,599 A) in view of Cheung et al. (US 6,515,964 B1) in view of Mao et al. (U.S. 6,459,427 B1).

Regarding **claims 2, 3, 16, 17, 30, 31, 44 and 45,** Aihara does not explicitly disclose the satellite signal includes an Internet Protocol (IP). However, Mao discloses a digital TV receiver for receiving Internet data over digital broadcast TV network. Basically, the data and control

information can be carried over MPEG-2 transport streams. The HTML pages and their control map information are either mapped directly onto the sections of the MPEG-2 transport stream or mapped through an intermediate layer such as UDP/IP and then encapsulated in the sections of the MPEG-2 transport stream. Mao further discloses that on the client side, a control block 240 allows the consumer to navigate 250 according to particular protocols 260, for example, UDP, and/or IP 270 (see abstract; col. 6, lines 7-12; col. 7-8, lines 63-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Aihara by providing IP data with MPEG-2 transport streams as disclosed by Mao in order greatly desired to provide Internet service with the television program to the consumer over digital broadcast TV network.

Further regarding **claims 3,17, 31 and 45**, Aihara as modified by Mao further discloses the MPEG-2 is segmented and carried over MPEG-2 transport packets, which can be filtered through the PID (packetID) by the decoder (see Mao: col. 8, lines 5-8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Primary Examiner
Art Unit 2611

June 13, 2005